

PILOT TESTING OF HEALTH-RELATED INDICATORS OF CLIMATE CHANGE IN EUROPE

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Background and Aims: The WHO European Centre for Environment and Health has completed the Climate, Environment and Health Action Plan and Information System (CEHAPIS) project involving the specification of health-related indicators of climate change. These indicators will be integrated in the Environment and Health Information System (EHIS) to monitor climate change-related environmental health issues and public health benefits of adaptation and mitigation policies.

Methods: Pilot testing of seven indicators was conducted using data from CEHAPIS project partners and international databases. Methodologies were finalized and recommendations developed for improving data availability.

Results: Population-weighted exposure to ground level ozone across Europe was estimated using compiled data from the European Environment Agency. Surveys of policies to prevent heat-related health effects in France, Hungary and Spain demonstrated substantial between-country variation, and utility of the proposed indicator. Daily data from Budapest, Hungary was used to demonstrate a methodology of heat wave exposure assessment. An easy-to-use excess mortality estimation method was shown to be sufficiently sensitive only for high intensity heat waves. Population exposure to ragweed pollen in Hungary was unusually low during the dry hot summer of 2007, which matched expectations. Information on pollen exposure in other countries was not readily available. In Ireland, unusually high and early seasonal peaks of Salmonellosis and Cryptosporidiosis were also observed in 2007. The temporal resolution of the European Centre for Disease Prevention and Control infection surveillance data was insufficient for assessing the effects of climate variability in most countries.

Conclusions: Exposure to ozone and policies to reduce health effects of heat are indicators ready for implementation in EHIS. Necessary actions concerning surveillance, data accessibility, legislation, and institutional infrastructure were recommended to the European Commission in order to advance the implementation of the CEHAPIS indicators and monitor health-related aspects of climate change.

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